

CELLULAR PHYSIOLOGY WORKSTATIONS FOR AUTOMATED DATA
ACQUISITION AND PERFUSION CONTROL

Abstract of the Disclosure

Cellular physiology workstations for automated data acquisition and perfusion control are described. The cellular physiology workstation may be used for physiological and electrophysiological experiments. Methods for employing such cellular physiology workstations in physiological and electrophysiological experiments are also disclosed. The cellular physiology workstations comprise one or more recording chambers each for holding one or more cells to be measured. One or more cells are placed in each recording chamber. Perfusion means, such as an automatic perfusion system is connected to the recording chamber to perfuse the cells with a plurality of solutions containing different concentrations of one or more agents to be tested. Biosensors, such as patch clamps, electrodes, or microscopes are positioned to detect a response from the cell. The cellular physiology workstation may optionally comprise injecting means for introducing an injection solution into the cell before and during analysis.